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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/011,657	12/04/2001	Gregory E. Missell	83165HEC	6858

7590

01/12/2004

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EXAMINER

SHEWAREGED, BETELHEM

ART UNIT

PAPER NUMBER

1774

8

DATE MAILED: 01/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

10/011,657

Applicant(s)

MISSELL ET AL.

Examiner

Betelhem Shewareged

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-13 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

DETAILED ACTION

1. Applicant's response filed on 07/30/2003 has been fully considered. The 35 USC 112 and the double patenting rejections have been withdrawn in view of Applicant's amendment and submission of Terminal Disclaimer.
2. Claims 1, 10 and 11 are amended, claim 7 is canceled, and claims 1-6 and 8-14 are pending.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6 and 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Satoshi et al. (JP 2000-203154) in view of Light (US 5,147,717).

Satoshi discloses an ink jet recording medium comprising a sheet and an ink receptive coating applied thereon (abstract). The sheet is equivalent to the claimed support and the ink receptive coating is equivalent to the claimed image receiving layer. Paper and plastic film are examples of the sheet [0068]. Of the listed examples of the sheet some are transparent or translucent and some are opaque. The ink receptive coating comprises porous polymeric particles [0006] and polyvinyl alcohol binder [0022] and [0045]. The particle size of the porous polymeric particle is 0.05 to 2 um [0007]. The porous polymeric particles are crosslinked with 5-80% crosslinking monomer

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[0009]. It is interpreted that the degree of crosslinking is 5-80%, because since Satoshi is silent as to what percentage of the 5-80% crosslinking monomer is crosslinked with the porous polymeric particles, it is interpreted that 100% of the 5-80% crosslinking monomer is crosslinked with the porous polymeric particles. The porous polymeric particles are made of ethylene glycol dimethacrylate [0010]. The surface area of the porous polymeric particles is 10-100m²/g [0006]. With respect to claim9, the process by which the porous polymeric particles are made is not dispositive of the issue of the patentability of the instant article claims.

With respect to claims 12 and 13, Satoshi fails to disclose the amount of the binder and the amount of the porous polymeric particles as claimed. The experimental modification of this prior art in order to ascertain optimum operating conditions fails to render applicants' claims patentable in the absence of unexpected results. *In re Aller*, 105 USPQ 233. One of ordinary skill in the art would have been motivated to adjust the amount of the binder and the amount of the porous polymeric particles in order to optimize the film forming and ink-absorbing properties of the layer. A prima facie case of obviousness may be rebutted, however, where the results of the optimizing variable, which is known to be result-effective, are unexpectedly good. *In re Boesch and Slaney*, 205 USPQ 215.

Satoshi fails to disclose a polyvinyl alcohol having the claimed degree of hydrolysis and the claimed number average molecular weight.

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Light teaches image recording element having ink receptive layers (abstract).

The ink receptive layers comprise a polyvinyl alcohol having a degree of hydrolysis of 98% and a number average molecular weight of 60,000 (col. 6, lines 14-20).

Satoshi and Light are analogous art because they are from the same field of endeavor that is the image recording medium art. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the polyvinyl alcohol of Light with the invention of Satoshi so as to obtain excellent ink receptivity and drying time (col. 6, lines 14-20).

Response to Arguments

5. Applicant's arguments with respect to claims 1-6 and 8-13 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

6. Claim 14 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Satoshi neither teaches nor suggests the use of a polyvinyl alcohol having a degree of hydrolysis of at least 98% and having a number average molecular weight of 70,000 and 105,000.

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Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betelhem Shewareged whose telephone number is 703-305-0389. The examiner can normally be reached on Mon.-Thur. 7:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H Kelly can be reached on 703-308-0449. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.



Betelhem Shewareged
December 23, 2003.